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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,249	09/27/2002	Edgar L. Garrison	71445-3	2125
20915	7590	07/21/2005	EXAMINER	
MCGARRY BAIR PC 171 MONROE AVENUE, N.W. SUITE 600 GRAND RAPIDS, MI 49503			CECIL, TERRY K	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/065,249

Applicant(s)

GARRISON ET AL.

Examiner

Mr. Terry K. Cecil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group 1, claims 1-3 without traverse is acknowledged. The requirement is made final. New claims 12-20 are grouped therewith.

### ***Claim Objections***

2. Claim 3 is objected to because of the following reasons:
  - In the first line, "is" should be deleted.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3 and 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because of the following reasons:
  - In each of claims 1 and 14, it is unclear whether "approximately" is intended to describe both end points of the claimed ranges or only the first.
  - In each of claims 1 and 14 applicant has defined the solutions to include "a second solution component of hydrogen peroxide" yet the claimed ranges therefore include zero. This is considered to render the claims indefinite since it is unclear whether the component is present or not.

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- Claims 2-3, 12-13, and 15-20 are rejected since they suffer the same defects as the claims from which they depend.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein (U.S. 3,350,265) in view of Elhaik et al. (U.S. 6,277,414) and in further view of Gomori (U.S. 4,915,955). Rubinstein teaches an antimicrobial composition in an aqueous solution for germicidal and sterilizing applications (col. 6, lines 22-42). The composition is composed of the active ingredients (those for disinfection) of silver and hydrogen peroxide. The silver is at a concentration of 2-10 ppm (.0002-.0010% by weight), which teaches a portion of the claimed ranges of claims 1 and 14. Rubinstein also teaches the hydrogen peroxide concentration to be 100 to 450 ppm (.01 to .045% by weight), which teaches a portion of the ranges of the maintenance solution in both claims 1 and 14 and a portion of the undiluted shock solution of claim 1.

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Rubinstein does not teach the diluted and pre-diluted compositions, wherein the hydrogen peroxide concentration of the undiluted shock solution of .264% to 26.4% but such is taught by Elhaik. Elhaik teaches a concentration of 0.1 to 60% by weight of hydrogen peroxide (abstract) [as in claim 1] and upon dilution of .0000025 to 4% by weight and preferably 1.5% to 8% (col. 8, line 43) [as in claims 1 and 14]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the H<sub>2</sub>O<sub>2</sub> conc. of Elhaik in the invention of Rubinstein, since Elhaik teaches the benefit of diluted and pre-diluted compositions suitable for disinfection while controlling pollution (col. 1). The same active ingredients are found in the pre-diluted and diluted solutions [as in claims 15-16].

Neither Rubinstein nor Elhaik teach the silver component to be in colloid form. However such is taught by Gomori. Gomori teaches the silver component to be in Silver nitrate form or in colloidal form (col. 2, lines 21-35). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the silver component of the modified Rubinstein to be in colloidal form, since Gomori teaches the colloidal form to be suitable for an H<sub>2</sub>O<sub>2</sub>/silver antimicrobial composition. This would be important to Rubinstein and Elhaik as an obvious alternative when silver nitrate is not available or not feasible.

As for the other portions of the claimed ranges of claims 1 and 14, as well as those of claims 17-20, such would have been obvious to the skilled man since Rubinstein teaches that the amounts of solutions can be changed depending upon degree of contamination and environmental conditions (col. 5, lines 8-14). In addition, the examiner contends that the amount of dilution of

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the concentrated solution, which would effect the resulting concentrations in the maintenance solution, are a matter of optimization within the skilled man that depends, e.g. on the types of organisms to be destroyed—e.g. any of those listed in table IIA of Elhaik.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Rubinstein, as applied above, and in further view of Chandler (U.S. 6,423,219). Claim 2 has the limitations of respective first second colorants for the solutions.

to emerge from such appliances. The active agent preferably includes a trace color (e.g., pink) so that the operator can  
20 detect the emergence thereof from the appliances. The active

As shown in the text reproduced above from col. 8, Chandler teaches adding a trace color to the biocidal agent. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the colorant of Chandler in the solution of Elhaik, as modified by Rubinstein, since Chandler teaches the benefit of determining when the solution has been flushed out of the object or line being treated. Although claim 2 does not require the first and second colorants to be different, it is contended that the diluted solution would be a lighter color of pink.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Rubinstein, as applied above, and in further view of Arata (U.S. 6,197,814). Arata teaches adding sodium bicarbonate to the biocide solution (col. 11, lines 35-36). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to add sodium bicarbonate of Arata to the solution of Elhaik, as modified by Rubinstein, in order to

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adjust the pH of the solution. The amount added would be within the knowledge of the skilled man in order to optimize to performance of the disinfectant solution by affecting the solubility of the constituents.

### ***Specification***

9. The specification is objected to because it doesn't include the claimed subject matter of the Silver component being expressed in percentage by weight equivalent to ppm.

### ***Response to Arguments***

10. Applicant's arguments filed 5-9-2005 have been fully considered but they are not persuasive because of the following reasons:

- Applicant has argued (page 8) that the composition of Rubinstein is not suitable for his application since Rubinstein includes a latex based material. This is not found convincing since Rubinstein clearly states that his antimicrobial composition can also be used for general germicide and sterilizing applications, preferably in aqueous solutions [col. 6] (not with latex).
- Applicant's argument that Rubinstein teaches away from higher ranges of hydrogen peroxide is unconvincing since this teaching only applies when the composition is used with latex and not when the composition is used for general cleaning/sterilization.

***Conclusion***

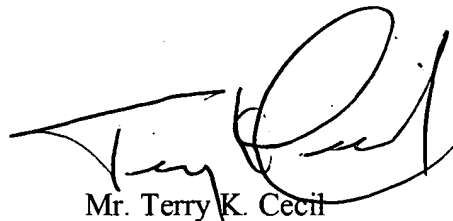
11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.



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12. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 272-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Terry K. Cecil', is written over a horizontal line.

Mr. Terry K. Cecil  
Primary Examiner  
Art Unit 1723

TKC  
July 19, 2005